AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-8. (canceled)

9. (currently amended) An air supply control method for a turbocharged engine having an intake manifold (20) downstream of ~~the~~ a compressor of ~~the~~ a turbocharger (14) and an exhaust manifold (22) upstream of ~~the~~ a turbine of the turbocharger (14), ~~in which the~~ comprising:

determining a mass air flow supplied to the engine and/or ~~the~~ a pressure in the intake manifold (20) ~~are determined~~, together with ~~the~~ a temperature in the exhaust manifold, ~~characterized in that the~~ wherein a pressure in the exhaust manifold (22) is determined as a function of the pressure in the intake manifold (20), ~~the~~ an engine speed, and [[the]] temperatures in [[the]] cylinders (4) and in the exhaust manifold (22).

10. (currently amended) The control method as claimed in claim 9, ~~characterized in that~~ wherein a correction factor dependent on the ambient surrounding pressure is provided.

11. (currently amended) The control method as claimed in claim 10, ~~characterized in that~~ wherein the pressure in the exhaust manifold (22) P_{exh} is calculated by a formula ~~of the type~~:

$$P_{exh} = [A(T_c)*MAP - B(N, AMP, T_{exh})]/C(T_{exh}),$$

where A, B and C are predetermined functions, T_c is the temperature in the cylinders, MAP is the pressure in the intake manifold, N is the engine speed, AMP is the ambient pressure and T_{exh} is the temperature of ~~the~~ burnt gases in the exhaust manifold.

12. (currently amended) The control method as claimed in claim 9, ~~characterized in that~~ wherein the air flow supplied to the engine is regulated by ~~means of~~ a throttle valve (18), and in that, when this throttle valve (18) is near its closed position within predetermined limits during a specified time interval, ~~the~~ an ambient external pressure AMP is calculated on ~~the~~ a basis of the exhaust pressure as a function of the engine speed.

13. (currently amended) An air supply control method for a turbocharged engine having an intake manifold (20) downstream of ~~thecompressor of the~~ a compressor of a turbocharger (14) and an exhaust manifold (22) upstream of ~~the~~ a turbine of the turbocharger (14), ~~in which the~~ comprising:

determining a mass air flow supplied to ~~the~~ an engine and/or ~~the~~ a pressure in ~~the~~ an intake manifold (20) ~~are determined~~, together with ~~the~~ a temperature in the exhaust manifold (22), ~~characterized in that the~~ wherein a pressure in the exhaust manifold (22) is measured by ~~means of~~ a sensor ~~or the like~~, and in that the pressure in the intake manifold (20) is determined on the basis of ~~the~~ an exhaust pressure measured as a function of ~~the~~ an engine speed and ~~the~~ temperatures in the cylinders (4) and in the exhaust manifold (22).

14. (currently amended) The control method as claimed in claim 13, ~~characterized in that~~ wherein a correction factor dependent on the ambient surrounding pressure is provided.

15. (currently amended) The control method as claimed in claim 14, ~~characterized in that~~ wherein the pressure in the intake manifold MAP is calculated by a formula ~~of the type~~:

$$MAP = [F(N, T_{exh}) * P_{exh} + G(N, AMP, T_{exh})] / [H(N, T_c)],$$

where F, G and H are predetermined functions, T_c is the temperature in the cylinders, P_{exh} is the pressure in the exhaust manifold, N is the engine speed, AMP is the ambient pressure and T_{exh} is the temperature of ~~the~~ burnt gases in the exhaust manifold.

16. (currently amended) [[A]] The control method as claimed in claim 9, ~~characterized in that~~ wherein the temperature in the exhaust manifold (22) is determined on the basis of modeling.

17. (currently amended) The control method as claimed in claim 10, ~~characterized in that~~ wherein the air flow supplied to the engine is regulated by ~~means of~~ a throttle valve (18), and in that, when this throttle valve (18) is near its closed position within predetermined limits during a specified time interval, ~~the~~ an ambient external pressure AMP is calculated on ~~the~~ a basis of the exhaust pressure as a function of the engine speed.

18. (currently amended) The control method as claimed in claim 11, ~~characterized in that~~ wherein the air flow supplied to the engine is regulated by ~~means of~~ a throttle valve (18), and in that, when this throttle valve (18) is near its closed position within predetermined limits during a specified time interval, the ambient external pressure AMP is calculated on ~~the~~ a basis of the exhaust pressure as a function of the engine speed.

19. (new) The control method as claimed in claim 9, wherein an air intake (10) and a mass air flow meter (12) are upstream of the turbocharger (14).

20. (new) The control method as claimed in claim 9, wherein an intercooler (16) is downstream of the turbocharger (14).

21. (new) The control method as claimed in claim 13, wherein an air intake (10) and a mass air flow meter (12) are upstream of the turbocharger (14).

22. (new) The control method as claimed in claim 13, wherein an intercooler (16) is downstream of the turbocharger (14).

23. (new) The control method as claimed in claim 9, wherein the air flow supplied to the engine is regulated by a mechanically or electrically controlled throttle valve (18), and when the throttle valve (18) is electrically controlled, an angle of opening of the throttle valve and opening of a turbocharger discharge valve (14) are controlled simultaneously.

24. (new) The control method as claimed in claim 13, wherein the air flow supplied to the engine is regulated by a

mechanically or electrically controlled throttle valve (18), and when the throttle valve (18) is electrically controlled, an angle of opening of the throttle valve and opening of a turbocharger discharge valve (14) are controlled simultaneously.

25. (new) The control method as claimed in claim 9, wherein a correlation between a measured value and the determined pressure in the exhaust manifold (22) is greater than 0.9.

26. (new) The control method as claimed in claim 13, wherein a correlation between a measured value and the determined pressure in the intake manifold (20) is greater than 0.9.